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PORTULACA UMBRATICOLA (PORTULACACEAE) IN LOUISIANA

MICHAEL H. MACROBERTS AND BARBARA R. MACROBERTS
Bog Research, 740 Columbia,
Shreveport, Louisiana 71104
Herbarium, Museum of Life Sciences
Louisiana State University-Shreveport
Shreveport, Louisiana 71115
mmacrobe@lsus.edu

ABSTRACT

Portulaca umbraticola Kunth is documented as occurring in Louisiana. A small population has been found in sandy soil on the Red River floodplain in Shreveport.
KEY WORDS: *Portulaca umbraticola*, Portulacaceae, Louisiana

We recently discovered a population of *Portulaca umbraticola* Kunth, also known as Chinese-hat or Wing-pod Purslane, in open sandy soils along the Southern Extension of the Clyde E. Fant Memorial Parkway on the Red River floodplain in Shreveport, Louisiana (Figs 1, 2, 3) and report it here as the first documented occurrence of the species in the state. The population of about 50 plants is restricted to a small area (ca. 0.1 ha). This area, which is adjacent to a bicycle trail and the Parkway, is frequently mowed. We searched several other similar areas on the Red River floodplain but without result. Associated species included *Cenchrus spinifex, Chamaesyce maculata, Chrysopsis pilosa, Coronopus didymus, Cynodon dactylon, Eragrostis minor, Kallstroemia parviflora, Mollugo verticillata, Oenothera laciniata, Paspalum notatum, Polygonum aviculare, Portulaca oleracea,* and *Tribulus terrestris*.

Voucher. **Louisiana.** Bossier Parish: Shreveport near Southern Extension of the Clyde E. Fant Memorial Parkway centered on 32° 28' 41.00" N, 93° 41' 28.41" W, at about 48 meters elevation, 20 Nov and 1 Dec 2011, *MacRoberts & MacRoberts 8929, 8931* (LSU, LSUS, UNCC).

Portulaca umbraticola was reported for Louisiana in the *Flora of North America* survey of *Portulaca* (Matthews 2003). It was not shown as occurring in Louisiana, however, in the accompanying map. No one else has reported this species from Louisiana (MacRoberts 1989; Thomas & Allen 1998; Kartesz & Meacham 2005; USDA Plants 2011; Nature Serve 2011). Consequently we contacted Matthews regarding this matter, and he replied: "I looked at my original distribution maps and I do not have a dot for Louisiana. ... The easiest explanation is that I made a mistake, and that is distinctly possible. With that explanation, then your collection does extend the distribution into Louisiana" (Matthews pers. comm. e-mail, 20 Nov. 2011). Matthews gave us a list of the herbaria from which he had obtained specimens of Louisiana *Portulaca* and we checked these collections either by e-mail or on-line search. None had *P. umbraticola* specimens from Louisiana. The closest location Matthews gives to Louisiana is Panola County, Texas, which is adjacent to Caddo Parish, Louisiana (pers. comm. e-mail, 29 Nov. 2011). The dot map in Turner et al. (2003) shows *P. umbraticola* no closer to Louisiana than Henderson County, Texas, about 200 kilometers west. With the range expansion of opportunistic species over recent years it is not unexpected to find this species in northwest Louisiana. Whether it has been brought into the area by human activity or is expanding its range because of climate change is a matter of conjecture (Chen et al. 2011).

Figure 1. *Portulaca umbraticola* habit.

Figure 2. *Portulaca umbraticola*, showing winged capsules.

The native range of *Portulaca umbraticola* is both North America and South America. Within the USA it occurs in Arizona, Arkansas, Georgia, Mississippi (one location), Missouri, New Mexico, Oklahoma, and South Carolina (Matthews 2003). In Georgia and South Carolina the species is uncommon and is designated as subsp. *coronata*, while all other populations are designated subsp. *lanceolata* (Matthews 2003). According to Matthews, who examined our photographs and a specimen (pers. comm. e-mail, 2 Dec. and 12 Dec. 2011), our specimens are *P. umbraticola* Kunth subsp. *lanceolata* J.F. Matthews & Ketron (Matthews & Ketron 1991; Matthews et al. 1992).

While this population of *Portulaca umbraticola* occurs on the west side of the Red River, it politically occurs in Bossier Parish; small bits of Bossier Parish occur on the west side of the Red River because the river, which was the original parish boundary in the mid-19th century, has changed course through natural meander and man-made alterations ("cutoffs") (Joiner 2006) (Fig. 3). Thus, while this *P. umbraticola* population is politically or technically in Bossier Parish, ecologically and biogeographically this area should be considered to be in Caddo Parish until populations are found on the east side of the river.

Figure 3. Aerial showing location of *Portulaca umbraticola* and Caddo-Bossier Parish boundaries.

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